

Remarks

A. Claims In The Case

Claims 1-3 and 5-17 are pending. Claim 4 has been canceled without prejudice. Claims 1 and 11 have been amended. Support for the amendment is found in the original claims. No new matter has been added.

B. The Claims Are Not Anticipated By Takahashi Pursuant To 35 U.S.C. § 102(b)

Claims 1-3, 6, 9, and 11 were rejected as being anticipated by U.S. Patent No. 5,980,218 to Takahashi et al. (“Takahashi”). Applicant respectfully disagrees with these rejections.

The standard for “anticipation” is one of fairly strict identity. A claim can only be anticipated if each and every element set forth in the claims is found to be either expressly or inherently described in the cited art. *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 728, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), MPEP §2131.

Claim 1 describes a combination of features including, but not limited to, the feature of: wherein the cooling means are equipped with filtering means for filtering the gas handled by the compressor” and/or “cooling means for cooling the motor means and the guide bearings by tapping off some of the gas handled by the compressor at an outlet from a first compression stage.”

Applicant’s specification states:

As shown in figures 2 and 3, in order to cool the motor 50 and the bearings 60, 62, 64 and 66 and the thrust bearing 67 that limits the axial displacement of the rotor 50, some of the gas leaving the first compression stage 56 is tapped off and used as a cooling gas. These various elements, such as the motor, the bearings and the thrust bearing are cooled using separate flows of cooling gas. **Flows in parallel are delivered by passages 80-1, 80-2, 80-6 forming part of a set of external lines collecting the gas leaving the first compression stage 56, after passing through a set of filter cartridges such as 82.** As will be appreciated, this arrangement, whereby the motor, on the one hand, and the bearings, on the other, are fed in parallel with separate cooling flows, makes it possible to get around the constraints associated with the size of the air gap of the magnetic bearings, on the one hand, and of the motor, on the other.

(Specification, page 6, line 22 through page 7, line 1, emphasis added).

In contrast, Takahashi does not appear to teach or suggest that the **cooling** means includes a filter and that the cooling gas is extracted from the first stage compressor and the second stage compressor. Referring to FIG. 1 of Takahashi, Takahashi appears to teach that the compressor system includes a filter upstream of the first stage of the compressor. The filter removes dust from the gas prior to entering the first stage of the compressor. Takahashi does not appear to teach or suggest that the gas coolers (e.g., 6a in Fig. 1) includes a filter. For example, Takahashi states:

A suction throttle valve 7 and a filter 13 are provided on the upstream of the first-stage compressor 1a. A sucked gas 4 in the compressor, from which dust is removed by the filter 13, passes through the suction throttle valve 7 to be introduced into the first-stage compressor 1a. An intermediate gas cooler 6a is provided between the first-stage compressor 1a and the second-stage compressor 1b. The gas, which is increased in pressure in the first-stage compressor 1a to be raised in temperature, is cooled in the **gas cooler 6a** to be introduced into the second-stage compressor 1b. Here, the filter 13 is opened to the atmosphere at its upstream side. In general, the sucked gas is a moist air containing vapor.

(Takahashi, col. 4, line 58 through col. 5, line 2, emphasis added).

The combination of the features of the claims including, but not limited to, the features of: “wherein the cooling means are equipped with filtering means for filtering the gas handled by the compressor” and/or “cooling means for cooling the motor means and the guide bearings by tapping off some of the gas handled by the compressor at an outlet from a first compression stage.” do not appear to be not taught or suggested by Takahashi. As such, claim 1 and the claims dependent thereon (claims 2, 3, and 5-17) are patentable over the cited art.

Claim 2 recites “wherein the cooling means further comprises a set of external lines collecting the gas on the outlet side of the first compression stage and feeding the internal passages in parallel.” Applicant submits that the quoted feature of claim 2, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 3 recites “wherein the internal passages for feeding the motor means are fed in parallel with the internal passages for feeding the bearings with cooling gas.” Applicant submits that the quoted feature of claim 3, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 6 recites “wherein the internal passages for feeding the bearings comprise a set of directional passages directed radially externally in the compressor, and wherein each internal passage feeds one bearing.” Applicant submits that the quoted feature of claim 6, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 9 recites includes “means for regulating a refrigeration flow rate for the motor and for each bearing.” Applicant submits that the quoted feature of claim 9, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 11 recites: “wherein the external lines are equipped with filtering means for filtering the gas handled by the compressor.” Applicant submits that the quoted feature of claim 11, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

C. The Claims Are Not Obvious Over The Cited Art Pursuant To 35 U.S.C. § 103(a)

Claims 5 and 12-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of U.S. Patent No. 6,464,469 to Grob et al. Applicant respectfully disagrees.

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173, 177-178 (C.C.P.A. 1967). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP §2143.03.

For at least the reasons stated in Section B, claim 1 is patentable over Takahashi.

Claims 5 and 12 recite: “wherein, with the driven shaft of the compressor supported by two end radial bearings, the cooling means comprise an axial passage running from one bearing to the other and fed at one of its ends by the external lines, and wherein the axial passage globally running longitudinally and radially externally through the compressor.” Applicant submits that the quoted features of claims 5 and 12, in combination with the other features of the claim, do not appear to be taught or suggested by the cited art.

Claim 13 recites: “wherein the internal passages for feeding the bearings comprise a set of directional passages directed radially externally in the compressor, and wherein each internal

passage feeds one bearing.” Applicant submits that the quoted feature of claim 13, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 14 recites: “wherein the motor is fed with cooling gas via an orifice formed in an end cover and in communication with an external line.” Applicant submits that the quoted feature of claim 14, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 15 recites: “wherein the flow of cooling gas is mixed with the flow of cooling gas leaving the bearings cooled by the gas coming from the internal passages.” Applicant submits that the quoted feature of claim 15, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 16 recites: “further comprising means for regulating a refrigeration flow rate for the motor and for each bearing.” Applicant submits that the quoted feature of claim 16, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

D. The Claims Are Not Obvious Over The Cited Art Pursuant To 35 U.S.C. § 103(a)

Claims 7 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi. Applicant respectfully disagrees.

For at least the reasons set forth in Section B, claim 1 is patentable over Takahashi.

Claim 7 recites “wherein the motor is fed with cooling gas via an orifice formed in an end cover and in communication with an external line.” Applicant submits that the quoted feature of claim 7, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

Claim 8 recites “wherein the internal passages for feeding the bearings comprise a set of directional passages directed radially externally in the compressor, and wherein each internal passage feeds one bearing, and wherein the motor is fed with cooling gas via an orifice formed in an end cover and in communication with an external line, and wherein the flow of cooling gas is mixed with the flow of cooling gas leaving the bearings cooled by the gas coming from the internal passages.” Applicant submits that the quoted feature of claim 8, in combination with the other features of claim, does not appear to be taught or suggested by the cited art.

E. The Claims Are Not Obvious Over The Cited Art Pursuant To 35 U.S.C. § 103(a)

Claims 10 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of the admitted prior art. Applicant respectfully disagrees.

For at least the reasons set forth in Section B, claim 1 is patentable over Takahashi.

Claim 10 recites: “means for collecting flows of cooling gas from members situated on a same side as an equalizing piston.” Applicant submits that the quoted feature of claim 10, in combination with the other features of claim, does not appear to be taught or suggested by the cited art.

Claim 17 recites: “further comprising means for collecting flows of cooling gas from members situated on a same side as an equalizing piston.” Applicant submits that the quoted

feature of claim 17, in combination with the other features of the claim, does not appear to be taught or suggested by the cited art.

F. Summary

Based on the above, Applicant submits that all claims are now in condition for allowance. Favorable reconsideration is respectfully requested.

Applicant respectfully requests a three-month extension of time to respond to the Office Action dated January 6, 2011. Authorization for the payment of the extension of time fee will be given upon electronic submission of this response. If any fees are inadvertently omitted or if any additional fees are required or have been overpaid, please appropriately charge or credit those fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account Number 50-1505/5310-08800/EBM.

Respectfully submitted,

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